

Application No.: 10/609265
Amendment dated: July 7, 2005
Reply to Office action of March 11, 2005

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1(currently amended). A system for dividing gas flow, wherein a gas in a primary flow path is divided into a plurality of secondary flow paths, one of said secondary flow paths being fully opened and the flow rate of gas in each of said secondary flow paths being related to the flow rate of gas in each other one of said secondary flow paths by a predetermined ratio, the system comprising:

a plurality of mass flow controllers, there being one of said mass flow controllers arranged to control flow in each said secondary flow path; and

a common controller connected to all of said mass flow controllers; and

a sensor arranged to measure the flow rate of gas in said fully opened secondary flow path, said sensor being connected to said common controller, and providing to said common controller a feedback signal having a value representing the flow rate of gas in said fully opened secondary flow path;

~~the ratio of the flow rate in each other one of said secondary flow paths relative to the flow rate in said fully opened secondary flow path being set at a~~

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~~value of 1 or less, and said common controller being responsive to said feedback signal said common controller including means for generating a set signal for each one of said secondary flow paths, other than said fully opened secondary flow path, by multiplying the value of said feedback signal by a predetermined constant ratio, and delivering, to the set signal for each of said other secondary flow paths to the mass flow controller therein in each other one of said secondary flow paths, a set signal for controlling the flow therein, each said constant ratio being such that the ratio of the flow rate in each of said other secondary flow paths to the flow rate in said fully opened secondary flow path is 1 or less said set signal being dependent on said feedback signal and being obtained by multiplying the measured flow rate in said fully opened secondary flow path by the predetermined ratio for the flow rates in said fully opened secondary flow path and said other one of said secondary flow paths.~~

2(original). A system for dividing gas flow as claimed in claim 1, wherein each said mass flow controller is a pressure sensing type mass flow controller.

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3(original). A system for dividing gas flow as claimed in claim 1, wherein the secondary flow paths are connected to inlets of a single processing chamber.

4(new). A system for dividing gas flow as claimed in claim 1, wherein
the flow rate in the fully opened secondary flow path is less than the flow rate in another of said secondary flow paths when said another of said secondary flow paths is fully opened; and
each said constant ratio is settable to 1, so that the flow rates in said fully opened flow path and in said another secondary flow paths can be made equal.

5(new). A system for dividing gas flow as claimed in claim 1, wherein the primary flow path is divided into at least three secondary flow paths, and wherein
the flow rate in the fully opened secondary flow path is less than the flow rate in a first one of said other secondary flow paths when said first one of said other secondary flow paths is fully opened, and the flow rate in said first one of said secondary flow paths when fully opened is less than the flow rate in a second one of said other secondary flow paths when said second one of said other secondary flow paths is fully opened; and
each said constant ratio is settable to 1, so that the flow rates in said fully opened flow path and in

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said first and second other secondary flow paths can
be made equal.